

ARTICLE 74-06

COMMODITY STANDARDS

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CHAPTER 74-06-01 RAPESEED

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74-06-01-01. Class. Rapeseed (*Brassica campestris* and *B. napus*) shall consist of fifty percent or more of whole seed of rapeseed before removal of dockage and is graded without reference to class or variety.

History: Effective September 1, 1979.

General Authority: NDCC 4-09.1-02

Law Implemented: NDCC 4-09.1-02

74-06-01-02. Determination of dockage.

1. Determination by hand sieves shall be by 6x22, 6x21, 6x20, 6x18 mesh per inch [2.54 centimeters] wire sieves and 5/64, 5.5/64, 6/64, 6.5/64, 7/64, 7.5/64 inch round hole sieves.
2. Determination by machine shall be by the Carter dockage tester for aspiration.
 - a. Dockage determination shall be made on the basis of a representative portion of five hundred grams of rapeseed cut from the sample as a whole as follows:
 - (1) The sample is scalped on the appropriate round hole sieve which will achieve maximum removal of large foreign material with minimum loss of rapeseed.

- (2) The scalped sample is run over the Carter dockage tester for aspiration using feed 3 and air 5 settings, using the 000 plastic riddle.
- (3) The sample is then screened on the wire mesh sieve which achieves maximum cleanout of weed seeds and other foreign material with a minimum loss of reasonably sound rapeseed.
- (4) A representative subsample of not less than twenty grams properly divided from the cleaned sample is handpicked for the remaining inseparable foreign matter (matter other than rapeseed) which is easily distinguished by visual inspection.

b. Computation of total dockage shall be as follows:

- (1) The percent of dockage removed by the hand sieves and the Carter dockage tester shall be computed on the basis of the sample as a whole. The percentage of dockage removed by handpicking shall first be computed on the basis of the handpicked portion and then on the basis of the percentage of the mechanically cleaned and hand-sieved rapeseed.

For example, if in a given sample, the dockage removed by mechanical means and hand sieves is ten percent, the percentage of mechanically cleaned and hand-sieved seed (or rapeseed) is ninety percent. If the percentage of dockage removed by handpicking is two percent of the handpicked portion, the two percent shall be multiplied by nine-tenths to obtain the percent of handpicked dockage, one and eight-tenths. The percent of mechanically and hand-sieved dockage, ten percent is then added to the handpicked dockage, one and eight-tenths percent to give a total dockage of eleven and eight-tenths percent.

- (2) Dockage is assessed to the nearest one-tenth of one percent. The results of individual cleaning procedures will be recorded on the reverse side of the sample tickets.

Example: 3.4% 5/64 round holes, 4% 6x21 wire, 1.7% air

History: Effective September 1, 1979.

General Authority: NDCC 4-09.1-02

Law Implemented: NDCC 4-09.1-02

74-06-01-03. Grading admixtures.

1. Conspicuous admixtures: over one percent to three and five-tenths percent inseparable foreign material that is conspicuous, grade Rapeseed, "Rejected Admixture" (Inseparable Seeds) and the excess

over two and five-tenths percent is added to the dockage. Samples containing over three and five-tenths percent grade Rapeseed, Samples North Dakota "Admixtures" (Inseparable Seeds).

2. Inconspicuous admixtures refers to common wild mustard and domestic brown mustard seeds. Up to five percent in rapeseed is disregarded in grading. Samples containing in excess of five percent to fifty percent grade Rapeseed, Sample North Dakota "Admixture" (Inseparable Seeds); over fifty percent including conspicuous admixtures, grade "Refuse Screenings," (Rapeseed).
3. Earth pellets (soft) are handpicked from the cleaned sample and up to two and five-tenths percent are added to the dockage; over two and five-tenths percent grade Rapeseed, Sample North Dakota "Admixture" (Earth Pellets).
4. Sclerotinia Sclerotiorum: in excess of three-tenths percent grade Rapeseed, Sample North Dakota "Admixture" (Sclerotinia).
5. Stones: over five-hundredths percent to two and five-tenths percent grade Rapeseed, Rejected; stones over two and five-tenths percent grade Sample Salvage.

History: Effective September 1, 1979.

General Authority: NDCC 4-09.1-02

Law Implemented: NDCC 4-09.1-02

74-06-01-04. Soundness. To assess the amount of distinctly green seeds and heat-damaged rapeseed, a minimum of five strips of one hundred seeds each shall be crushed with a roller and examined. The percent of damage shall be based on the crushed count from the cleaned sample.

1. "Broken seeds" refers to any broken rapeseed that is not assessed as dockage and otherwise sound is considered as sound.
2. "Damaged" includes seeds that are distinctly shrunken or shriveled as from frost, discolored as from mold, completely rimed or excessive weathering, distinctly green seeds, sprouted, heated, or otherwise distinctly damaged seeds.
3. "Distinctly green seeds" refers to rapeseed after being crushed, is of a vivid green color throughout the seed.
4. "Heat-damaged seed" includes rapeseed and pieces of rapeseed which have been discolored - light tan to charcoal black - and damaged by excessive respiration or any other heating or drying process. Samples containing heated in excess of two percent or having a distinctly heated odor in combination with any heated seeds, grade Rapeseed North Dakota "Heated".

5. "Odor" includes sharp, acrid odors usually caused by rapeseed that has gone through a heating condition due to excessive respiration. The determination of odor shall be based on the strips of rapeseed used to determine heat damage, after crushing. Rapeseed that is distinctly sour, musty, or has a commercially objectionable odor will be graded Sample North Dakota "Odor".

History: Effective September 1, 1979.

General Authority: NDCC 4-09.1-02

Law Implemented: NDCC 4-09.1-02

74-06-01-05. Moisture. Percentage of moisture shall be that ascertained by the air oven or ascertained by any device and method which shall give equivalent results in the determination of moisture. A sound sample shall have a moisture not exceeding ten and five-tenths percent. The sample will be graded "Tough" between ten and six-tenths percent and twelve and five-tenths percent and over twelve and five-tenths percent as "Damp". Where applicable, these terms shall be shown after the grade class.

History: Effective September 1, 1979.

General Authority: NDCC 4-09.1-02

Law Implemented: NDCC 4-09.1-02

74-06-01-06. North Dakota rapeseed standards - Grading factors - Maximum tolerances.

	GRADE		
	No. 1 North Dakota	No. 2 North Dakota	No. 3 North Dakota
Damage - Heated	0.1%	0.5%	2%
Damage - Distinctly Green Seeds	2%	6%	20%
Damage - Total	3%	10%	20%
Admixtures of Foreign Material - Sclerotinia	0.1%	0.2%	0.3%
Admixtures of Foreign Material - Stones	0.05%	0.05%	0.05%
Admixtures of Foreign Material - Total Conspicuous Admixtures	1%	1%	1%
Inconspicuous Admixture *	5%	5%	5%

* Includes common wild mustard seed or domestic brown mustard seed, or both.

History: Effective September 1, 1979.

General Authority: NDCC 4-09.1-02

Law Implemented: NDCC 4-09.1-02

74-06-01-07. Types of analysis on rapeseed.

1. Grade determination - Official samples.

(Form CI-1) samples taken by North Dakota state seed department authorized inspectors or samplers licensed by the federal grain inspection service.

2. Grade determination - Submitted samples.

(Form CI-2) samples not officially taken under North Dakota state seed department supervision.

3. Percentage of Admixtures.

(Form - Seed Analysis Report)

Percentage by weight, reported to the nearest one-tenth of one percent of the following:

Mustard, including all wild and domestic species, combined; and
Other seeds - all seeds other than the mustard group.

4. Percentage of Mustard Seed.

(Form - Seed Analysis Report)

Total mustard seed, reported to the nearest one-tenth of one percent by weight.

5. Factor Analysis.

Completely rimed seed	Infestation
Conspicuous admixture	Moisture
Distinctly green seed	Odor
Dockage	Sclerotina
Heat-damaged seed	Stones
Inconspicuous admixture	Total damaged seed

History: Effective September 1, 1979; amended effective May 1, 1988; December 18, 1989; September 1, 2002.

General Authority: NDCC 4-09.1-03

Law Implemented: NDCC 4-09.1-03

74-06-01-08. Sample size. The minimum sample size is five hundred grams for grading rapeseed. Samples of less than five hundred grams will receive factor

analysis on those factors which can be done with the submitted sample size, no grade will be reported.

History: Effective May 1, 1988.

General Authority: NDCC 4-09.1-02

Law Implemented: NDCC 4-09.1-02